

## SECTION 8

### MASTS AND POINTERS

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#### 8.1 REFERENCES

(Not Used)

#### 8.2 INTRODUCTION

This Section contains the Contractor Design and Provide general requirements for the masts and pointers.

*For WSF Fleet-wide Standardization purposes, End No. 1 of the Vessel shall always be considered the bow, and this designation shall delineate port and starboard, fore and aft wherever they are addressed in the Technical Specification.*

#### 8.3 GENERAL

For material, workmanship, welding, integrity, fairness and inspection see appropriate items in Section 2 of the Technical Specification.

Safety lines for the masts are specified in Sections 5 of the Technical Specification.

Rigging for the masts is specified in Section 9 of the Technical Specification.

Surface preparation and painting is specified in Section 14 of the Technical Specification.

- 1 Whistles on the masts are specified in Section 15 of the Technical Specification.
- 2 Navigation lights on the masts are specified in Section 92 of the Technical Specification.
- 3 Radar antennas on the masts are specified in Section 94 of the Technical Specification.
- 4 Masts and staffs, and associated yardarms, gaffs, platforms, brackets and fittings shall be  
5 provided to support and position navigation lights, navigation equipment, communication  
6 equipment, flags and rigging in accordance with applicable Authoritative Agency  
7 requirements and the requirements of this Section of the Technical Specification.
- 8 All fittings and platforms shall be lightweight, of simple design, and free of projecting edges  
9 that may interfere with the rigging or with anyone going aloft.

#### 10 **8.4 MASTS**

11 The Contractor shall design and provide two (2) masts, on top of or adjacent to each  
12 Pilothouse, as specified herein.

13 Masts shall be of steel construction and be self-supported, complete with halyards, spreaders,  
14 gaffs, radar platforms and rigging pad eyes. A bolted watertight access plate shall be  
15 provided for maintenance and servicing. Separate rungs shall be provided on the side of the  
16 mast for access aloft and servicing equipment. Fabrication details for rungs, safety lines and  
17 fittings are specified in Section 5 of the Technical Specification. Safety lines and fittings  
18 shall start at six (6) feet above the deck and continue to the top of the mast.

19 Navigation Bridge Deck and Pilothouse structures shall be adequately strengthened, in way  
20 of the masts.

21 All surfaces of the mast(s) and adjacent structure that are not watertight from the weather  
22 shall be accessible for maintenance of the coating systems.

23 All Mast voids and platforms shall have provision for drainage.

24 Cable and piping runs shall be internal to the mast(s) except where otherwise required for  
25 proper operation of equipment.

26 Platforms shall be provided to service and, as appropriate, support the various radar,  
27 whistles, navigation lights, and other antennae and equipment mounted on the masts as well  
28 as allowing for future navigation equipment needs. All platforms shall be fabricated from  
29 grating material or perforated plate with sufficient holes and spacing to provide drainage.

30 Access shall be provided to all equipment and fixtures installed on the masts and platforms.  
31 Handrails, grabs, ladders and climber safety device attachment rails and fittings shall be  
32 installed along the access routes throughout the length of the mast(s), and in way of mast  
33 platforms and yardarms as specified in Section 5 of the Technical Specification.

1 Radar and other antennae shall be positioned and arranged on the mast(s), and relative to one  
2 another, in a manner that accomplishes the following:

- 3     A. Prevents electromagnetic interference that would otherwise compromise the quality  
4       of reception, transmission, or function of any antennae or item of equipment;
- 5     B. Maximizes sweep areas (minimizes obstructions) of telecommunications and radar  
6       antennae;
- 7     C. Prevents rotating components from obstructing or reflecting light sources;
- 8     D. Conforms with all manufacturers' recommendations.

9 Foundations shall be provided for the whistle, radar antenna and navigation lights, and to  
10 comply with USCG International Navigation Rules (COMDINST M16672.2A). The cap  
11 plate at the top of each mast shall be the foundation for the upper masthead light.

12 See Section 102 of the Technical Specification for Mast vibration criteria.

## 13 **8.5 POINTERS**

14 The Contractor shall provide and install two (2) pointers, one (1) in front of each Pilothouse.  
15 Pointers and stays shall be of steel construction and shall be removable using Type 316  
16 stainless steel fasteners.

17 The pointers are used as a steering reference and shall be designed to be straight, rigid and  
18 show no (zero) vibration at the pointer tip.

## 19 **8.6 SPARE PARTS AND INSTRUCTION MANUALS**

20 (Not Used)

## 21 **8.7 TESTS, TRIALS, AND INSPECTIONS**

22 Tests and/or trials shall be in accordance with Section 101 of the Technical Specification.

23 Inspections shall be performed as defined in this Section and in Sections 1 and 2 of the  
24 Technical Specification.

## 25 **8.8 PHASE II TECHNICAL PROPOSAL REQUIREMENTS**

26 The following drawing, in addition to other deliverables required by Section 100 of the  
27 Technical Specification and the Authoritative Agencies, shall be provided during Phase II  
28 Technical Proposal stage of Work in accordance with the requirements of Section 100 of the  
29 Technical Specification:

1        A. Preliminary Masts and Pointers Arrangement and Details

2        The *Preliminary Masts and Pointers Arrangement and Details* drawing shall accurately  
3        depict the size, location, and method of construction, materials and shape of each mast,  
4        platform locations and the equipment located on each.

5        See Section 102 of the Technical Specification for mast vibration analysis requirements.

6        **8.9 PHASE III DETAIL DESIGN AND CONSTRUCTION REQUIREMENTS**

7        The deliverables required by Section 100 of the Technical Specification and the  
8        Authoritative Agencies, shall be provided during the Phase III Detail Design stage of Work  
9        in accordance with the requirements of Section 100 of the Technical Specification.

**(END OF SECTION)**